



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/695,748

10/24/2000

George W Keilman

66060-6

3238

22504 7590 07/13/2007  
DAVIS WRIGHT TREMAINE, LLP  
1201 Third Avenue, Suite 2200  
SEATTLE, WA 98101-3045

EXAMINER

NASSER, ROBERT L

ART UNIT

PAPER NUMBER

3735

MAIL DATE

DELIVERY MODE

07/13/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/695,748

Applicant(s)

KEILMAN ET AL.

Examiner

Robert L. Nasser

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 47, 50, 51, 57-61 and 63-96 is/are pending in the application.
- 4a) Of the above claim(s) 72, 73, 77 and 78 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 47, 50, 51, 57-61, 63-68 and 79-84 is/are allowed.
- 6) ☒ Claim(s) 69-71, 74-76, 85, 86, 88-92, 94-96 is/are rejected.
- 7) ☒ Claim(s) 87 and 93 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

Art Unit: 3735

The examiner regrets that upon further review, the following rejection was deemed pertinent to some of the claims. Accordingly, the following rejection is being made non-final.

Claims 72, 73, 77, and 78 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/19/2006.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 69 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Govari et al 6053873 in view of Silvian 4681111. Govari shows a stent that has two ultrasonic transducers thereon, which are activated from outside the body to monitor blood flow (see column 5, lines 33+). Govari does not use a magnetic signal. However, Silvian teaches that it is well known to activate an implanted device magnetically. Hence, it would have been obvious to modify the combination to activate the ablation device using a magnetic signal, as it is merely the substitution of one known activation technique for another. In addition, claims 88 and 89 are rejected in that the circuitry in

Art Unit: 3735

the stent is powered from outside of the body and the power signal is received by rf coil

40. The examiner takes official notice that hardwired and wireless connections are known to be equivalent in the art. Accordingly, it would have been obvious to modify the combination to hardwire the external power source to the sensor, as it is merely the substitution of one known equivalent for another.

The examiner notes that the term therapeutic transducer is merely intended use and that the transducer of Govari is capable of being used for therapy. Applicant might recite activating the traducer to effect a treatment to overcome the rejection.

The examiner recognizes that the following is a 5 reference combination.

However, it is the examiner's position that the combination merely changes the treatment modality and transmission signal, which are minor aspects of the invention.

Claims 68, 70, 71, 74, 75, 76, 85, 86, 88-92, and 94-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Govari et al 6053873 in view of Janssen 5749914, Brisken 6210393, Umemura et al 5523058, and Silvian 4681111. Govari teaches a method of detecting when a stent is becoming occluded by sensing flow or pressure in the stent with a diagnostic transducer coupled to the stent and transmitting the information to a diagnostic device located outside of the body. It does not sending a therapeutic signal. Janssen teaches a method for clearing an occluded stent by inserting a catheter into the stent and transmitting a therapeutic signal to electrodes at the end of the stent to activate the electrodes an ablate the tissue, to remove the occlusion. As such, it would have been obvious to modify Govari's method to further

Art Unit: 3735

treat the artery when an occlusion is detected using the device of Janssen, to improve the patient's health and prevent a heart attack. Hence, the combination activates the treatment in response to the diagnosis. The combination activates a transducer, but it does not have 2 ultrasonic frequencies. Briskeen teaches a method of treating intimal hyperplasia and other growths into a stent using ultrasound inside the stent to cause cavitation and destruction of the cells. As such, it is an alternative treatment to Jansen. Hence, it would have been obvious to modify the combination to use an ultrasonic treatment transducer, as it is merely the substitution of one known equivalent treatment for another. In addition, Umemura et al further teaches an ultrasonic technique to cause cavitation tissue that uses two wavelengths of ultrasound. Hence, it would have been obvious to modify the combination to use two wavelengths, as it is merely the substitution of one treatment for another. The combination does not magnetically activate the transducer. However, Silvian teaches that it is well known to activate an implanted device magnetically. Hence, it would have been obvious to modify the combination to activate the ablation device using a magnetic signal, as it is merely the substitution of one known activation technique for another. In addition, claims 88 and 89 are rejected in that the circuitry in the stent is powered from outside of the body and the power signal is received by rf coil 40. The examiner takes official notice that hardwired and wireless connections are known to be equivalent in the art. Accordingly, it would have been obvious to modify the combination to hardwire the external power source to the sensor, as it is merely the substitution of one known equivalent for

Art Unit: 3735

another. Claim 63 is rejected in that there are a plurality of pressure sensors along the stent.

Claims 47, 50, 57-61, 63-68, and 79-84 are allowable. These claims define over the art in that none of the art activates a drug ultrasonically in combination with the other features of the claims.

Claim 87 and 93 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 87 and 93 define over the art in that none of the art ultrasonically activates a drug precursor, in combination with the method steps of claims 85 and 91

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is 571 272-4731. The examiner can normally be reached on m-f 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3735

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert L. Nasser  
Primary Examiner  
Art Unit 3735

RLN  
July 6, 2007

